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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,069	10/21/2003	Matt Smith	213202.00486	6514

27160 7590 06/29/2004

PATENT ADMINSTRATOR
KATTEN MUCHIN ZAVIS ROSENMAN
525 WEST MONROE STREET
SUITE 1600
CHICAGO, IL 60661-3693

EXAMINER	
NORDMEYER, PATRICIA L	
ART UNIT	**PAPER NUMBER**
1772	

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/689,069	SMITH ET AL.
	Examiner	Art Unit
	Patricia L. Nordmeyer	1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20,45 and 46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20, 45 and 46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 2, 11 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Brown et al. (USPN 6,197,403).

Brown et al. discloses a foam element with a channel (Column 9, lines 6 – 12, Column 11, claim 12, and Figure 1, #64) made from an isocyanate foam matrix (Column 9, lines 50 – 54) or a polyurethane foam (Column 5, lines 3 – 8) where the surface is covered by non-cellular coating, or film, which could be polyurethane,(Column 4, lines 47 – 60) that is impervious to water (Column 4, lines 36 – 39).

Regarding the limitation of an air channel surface which is coated with a substantially fluid impermeable material in claim 1, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed, i.e. as an air channel, does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham,* 2 USPQ 2d 1647 (1987).

Regarding the limitation of the word "seat" in claim 1 of the application, since it is present in only the preamble of the claim, it was given no patentable weight since it is an intended use of the foam element. The claims were examined on the body of the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1 – 3, 7 – 10, 14, 15, 18 – 20, 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregory et al. (USPN 5,597,200) in view of Hostettler (USPN 4,524,102).

Gregory et al. discloses a seat cushion with air channels in the surface of the interior foam (Column 3, lines 9 – 12 and Figures 1,4 and 5, #17) to deliver heated or cooled air to the occupant of the seat, which flows through another foam surface that is permeable to air and covers the channels (Column 3, lines 27 – 30 and Figures 1 and 5,

#40). The seat element has a surface (Figure 1, #24). Each air channel has a channel surface (Figure 1, #26 and 27) and is in communication with a passageway (Figure 1, #14). As seen in Figure 3, the seat cushion may contain multiple channels to direct air flow to the seat occupant. A diffuser element, which includes reticulated foam layer made from polyurethane (Column 5, lines 49 – 50, Figure 5, #40 and Column 3, lines 27 – 30), is attached to an upholstery layer (Figure 5, #42), like leather, that has holes to allow for the flow of air (Column 6, lines39 – 47) that covers the foam body with the channels (Figure 5, #30) in a car seat, cushion and backrest (Figure 7). However, Gregory et al. fails to disclose the foam being isocyanate based, the channels formed in the foam being coated with a gas impermeable material to retard the diffusion through the surface of the channel and into the foam.

Hostettler teaches an isocyanate based foam matrix (Column 42, lines 38 – 39) that may be used in many different articles (Column 9, lines 1 – 4) which contains a skin on the surface of the foam made from an elastomer (Column 43, lines 52 – 54) for the purpose of making the surface of an article impervious to liquids and oil (Column 1, lines 67 – 68), inherently making it substantially impervious to air.

Therefore, one of ordinary skill in the art would have recognized that the isocyanate based foam matrix is well known in the art to use as part of an arm rest since the foam material is more flexible and impervious to oil and water as shown by Hostettler.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the isocyanate based foam with a skin covering in Gregory et al. in order to make the surface of an article impervious to liquids and oil, inherently making the foam substantially impervious to air as taught by Hostettler.

5. Claims 4 – 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregory et al. (USPN 5,597,200) in view of Hostettler (USPN 4,524,102) as applied to claims 1 – 3, 7 – 10, 14, 15, 18 – 20, 45 and 46 above, and further in view of Bonk et al. (USPN 3,644,168).

Gregory et al., as modified with Hostettler, discloses a seat cushion with air channels in the surface of the interior foam made from an isocyanate based matrix to deliver heated or cooled air to the occupant of the seat, which flows through another foam surface that is permeable to air and covers the channels. However, the modified Gregory et al. fails to disclose an impermeable coating with the desired thickness and the fluid impermeable material being produced in situ in a mold used to produce the foam matrix.

Bonk et al. teaches a coating that is formed in situ with a polyisocyanurate foam, which is impervious to water (Column 2, lines 12 – 20), with a thickness between 0.25 and 3.0 mm (Column 2, lines 45 – 51) in a foam element in the roofs of vehicles (Column 5, lines 60 – 63) for the purpose of making a foam element that is impervious to liquid

while having a high resistance to heat and flame spread along with high insulating capacity.

Therefore, one of ordinary skill in the art would have recognized that the a polyisocyanurate foam with a coating that is formed in situ is well known in the art to use in the fabrication of automobiles or furniture to make a padding that has a high resistance to heat and flame spread along with high insulating capacity as shown by Bonk et al.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided a coating that is formed in situ in the mold with the desired thickness in modified Gregory et al. in order to form a foam element which is impervious to liquid while having a high resistance to heat and flame spread along with high insulating capacity as taught by Bonk et al.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gregory et al. (USPN 5,597,200) in view of Hostettler (USPN 4,524,102) as applied to claims 1 – 3, 7 – 10, 14, 15, 18 – 20, 45 and 46 above, and further in view of Yuasa et al. (USPN 5,750,246).

Gregory et al., as modified with Hostettler, discloses a seat cushion with air channels in the surface of the interior foam made from an isocyanate based matrix to deliver heated or cooled air to the occupant of the seat, which flows through another foam surface that is permeable to air and covers the channels. However, the modified Gregory

et al. fails to disclose an impermeable coating derived from an emulsion composition comprising polymer particles.

Yuasa et al. teaches a polyurethane emulsion coating (Column 4, lines 5 – 7) in a car seat component for the purpose of making a foam element impervious to water while having excellent flame resistance (Column 1, lines 61 – 62).

Therefore, one of ordinary skill in the art would have recognized that the a foam seat with a polyurethane emulsion coating is well known in the art to use in the fabrication of automobiles or furniture to make a padding that has a high resistance to flame while being impervious to water as shown by Yuasa et al.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided an emulsion coating in the modified Gregory et al. in order to make a foam element impervious to water while having excellent flame resistance as taught by Yuasa et al.

7. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregory et al. (USPN 5,597,200) in view of Hostettler (USPN 4,524,102) as applied to claims 1 – 3, 7 – 10, 14, 15, 18 – 20, 45 and 46 above, and further in view of Burchi (USPN 5,400,490).

Gregory et al., as modified with Hostettler, discloses a seat cushion with air

channels in the surface of the interior foam made from an isocyanate based matrix to deliver heated or cooled air to the occupant of the seat, which flows through another foam surface that is permeable to air and covers the channels. However, the modified Gregory et al. fails to disclose a trim cover placed over the surface of the foam element and a frame element that is at least partially embedded in the foam matrix.

Burchi teaches a foam element that is attached to and is covered by a trim piece (Column 6, lines 53 – 56 and Column 9, claim 16) and a frame element (Column 8, claims 12 and 13) that is embedded in the foam in a seat for the purpose of making foam element that is integrally attached to the rest of the seat.

Therefore, one of ordinary skill in the art would have recognized that the a foam element that is attached to and is covered by a trim piece and a frame element that is embedded in the foam in a seat is well known in the art to use in the fabrication of automobiles to support and strengthen the seat as shown by Yuasa et al.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the pieces of the seat that are attached by expanded foam in the modified Gregory et al. in order to make a foam element that is integrally attached to the rest of the seat as taught by Burchi.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (571) 272-1496. The examiner can normally be reached on Mon.-Thurs. from 7:00-4:30 & alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patricia L. Nordmeyer
Examiner
Art Unit 1772

pln

HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

6/25/04